

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
29 September 2005 (29.09.2005)

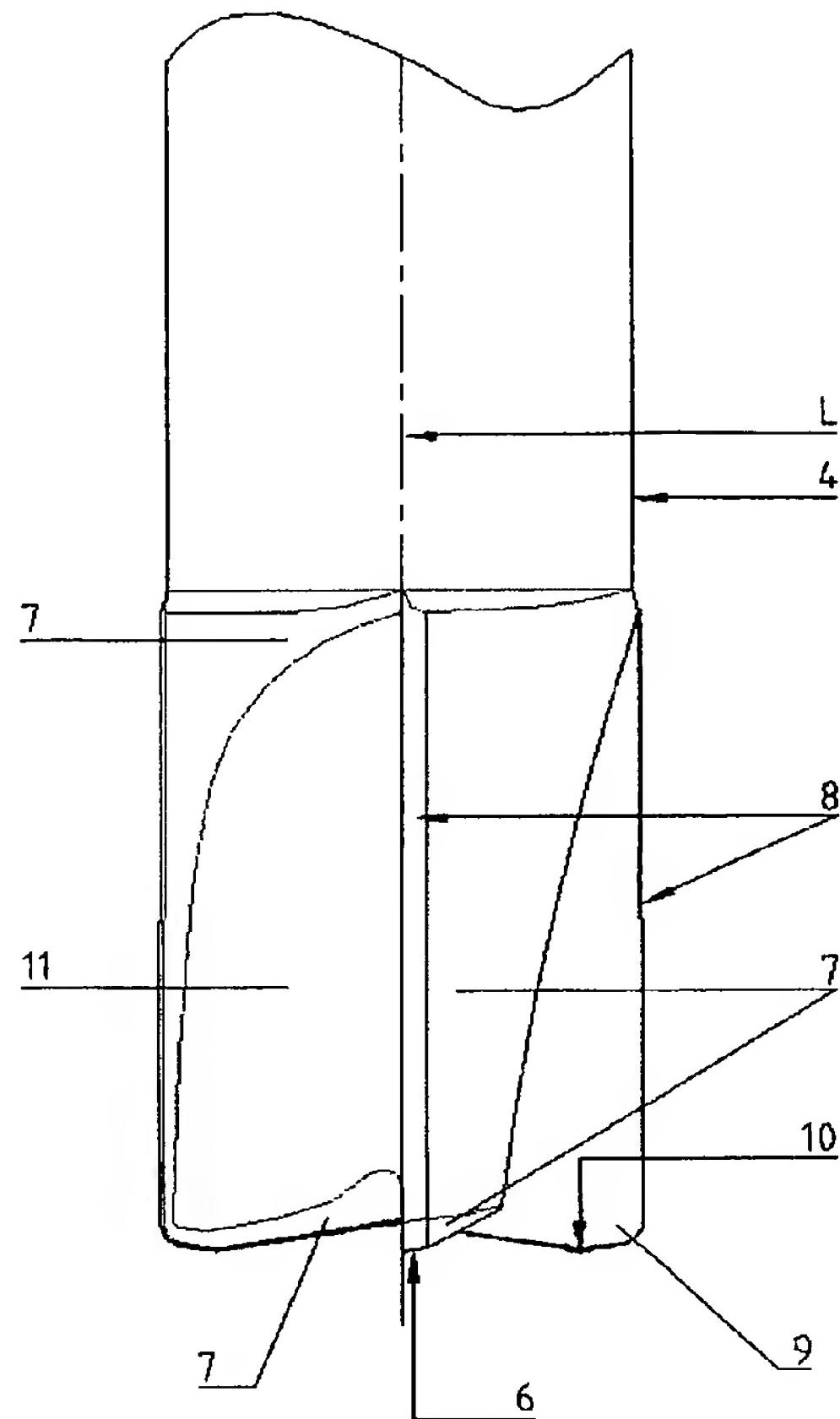
PCT

(10) International Publication Number
WO 2005/089991 A1

- (51) International Patent Classification⁷: **B23B 51/02, B23C 5/10**
- (21) International Application Number: **PCT/EP2005/051129**
- (22) International Filing Date: 14 March 2005 (14.03.2005)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
04075799.9 12 March 2004 (12.03.2004) EP
04078252.6 30 November 2004 (30.11.2004) EP
- (71) Applicants (*for all designated States except US*): **SANDVIK INTELLECTUAL PROPERTY AB [SE/SE]; S-811 81 SANDVIKEN (SE). Van Frankenhuyzen B.V. [NL/NL]; Kortenhoevenseweg 159, NL-4128 LD Lexmond (NL).**
- (72) Inventors; and
- (75) Inventors/Applicants (*for US only*): **GÜNTHER, Carsten [DE/DE]; Am Mühlgraben 7a, 09212 Limbach-Oberfrohna (DE). EGGINK, Jan [NL/NL]; Harderwijkerveld 160, NL-6952 AN Dieren (NL). VAN FRANKENHUYZEN, Jan [NL/NL]; Dorpstraat 23, NL-4145 LA Schoonrewoerd (NL).**
- (74) Agents: **WEBER, Dieter et al.; Patentanwälte Weber, Seiffert, Lieke, Postfach 61 45, 65051 Wiesbaden (DE).**
- (81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ,

[Continued on next page]

(54) Title: CUTTING TOOL AND METHOD FOR CUTTING MATERIAL



(57) Abstract: Tool for cutting materials with a rotatable body having a rotation axis and cutting edges for cutting the material during movement of the body in a first direction parallel to the rotation axis. In order to stabilise the tool during cutting the cutting edges comprise inner cutting edges laying on a first surface of revolution which is in the first direction higher at a larger diameter and lower at a smaller diameter. The invention includes methods for using the tool.

WO 2005/089991 A1



TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA,
ZM, ZW.

- (84) **Designated States** (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- *with international search report*

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.